



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

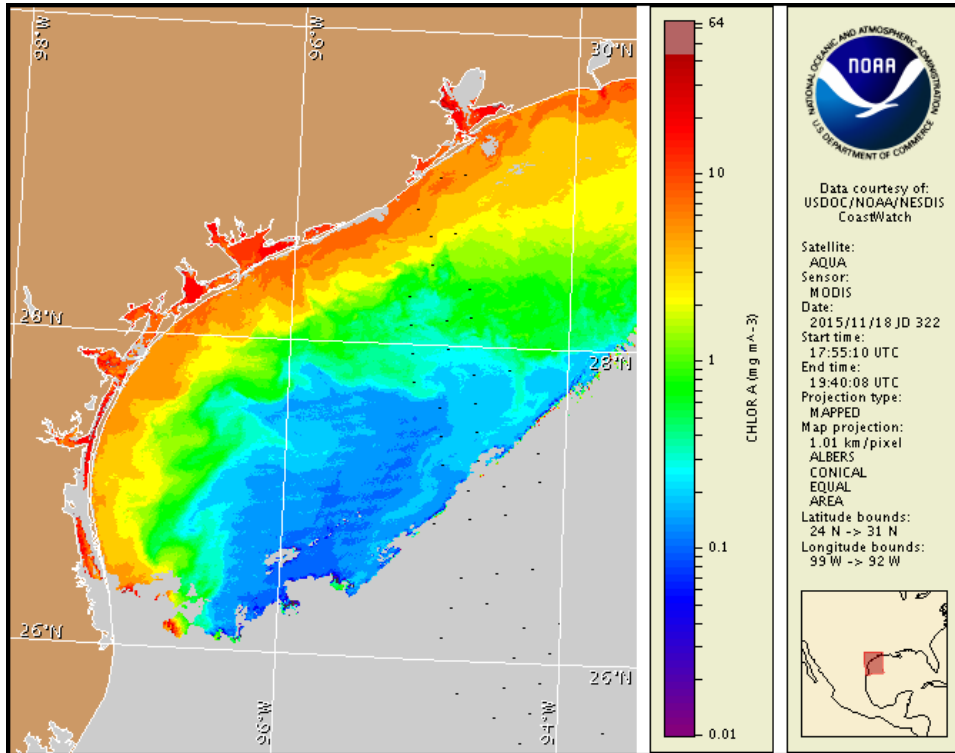
Thursday, 19 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 16, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 9 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

*Karenia brevis* (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from Matagorda Bay to the Rio Grande. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Thursday, November 19 through Monday, November 23 is listed below:

### Region: Forecast (Duration)

**Matagorda Peninsula region:** Low (Th-F) Very Low (Sa-M)

**Matagorda Island region:** Very Low (Th, Sa-M), Low (F)

**Bay region-Matagorda Bay:** High (Th-M)

**Bay region-San Antonio to Espiritu Santo Bay:** High (Th-M)

**Bay region-Aransas Bay to Aransas Pass:** Low (Th-M)

**Bay region-Corpus Christi Bay:** High (Th-M)

**Aransas Pass to PINS region:** Low (Th-F) Very Low (Sa-M)

**Bay region-Upper Laguna Madre:** Very Low (Th-M)

**Padre Island National Seashore region:** Moderate (Th-M)

**Mansfield Pass to Beach Access 6 region:** Low (Th-M)

**Bay region-Lower Laguna Madre to Laguna Vista:** Low (Th-M)

**Beach Access 6 to Rio Grande region:** Very Low (Th-M)

**All Other Texas Regions:** None expected (Th-M)

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations.

## Analysis

*Karenia brevis* concentrations range from 'background' to 'high' from Matagorda Bay to the Rio Grande. No new samples are available at this time. Samples from Nov. 2-4 indicated that *K. brevis* concentrations were up to 'high' within Matagorda and San Antonio Bays, 'low a' alongshore Matagorda Peninsula, 'low a' in Aransas Bay, 'high' in Corpus Christi Bay, 'very low b' within the Upper Laguna Madre, and up to 'very low a' near Brazos Santiago Pass (TPWD). Samples from Nov. 3-4, from alongshore Padre Island National Seashore to South Padre Island indicated up to 'medium' *K. brevis* concentrations (TPWD). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>.

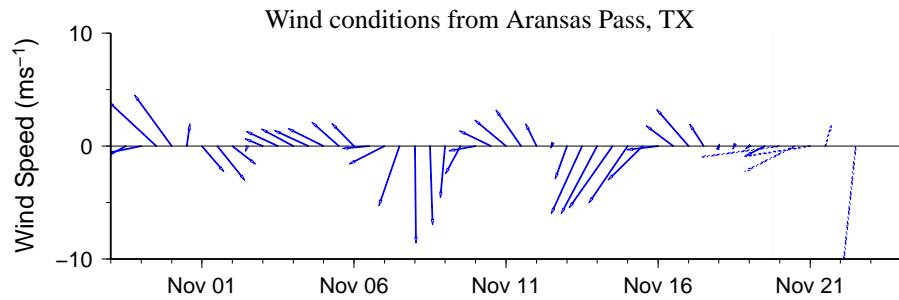
For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (11/18, shown left) indicates that chlorophyll levels have declined throughout the Texas coast over the past few days. From Sabine Pass to approximately 32 miles north of the Rio Grande, chlorophyll levels range from 3 to 7  $\mu\text{g/L}$ ; they ranged from 3 to 15  $\mu\text{g/L}$  where visible along- and offshore the Texas coast on imagery from Nov. 14.

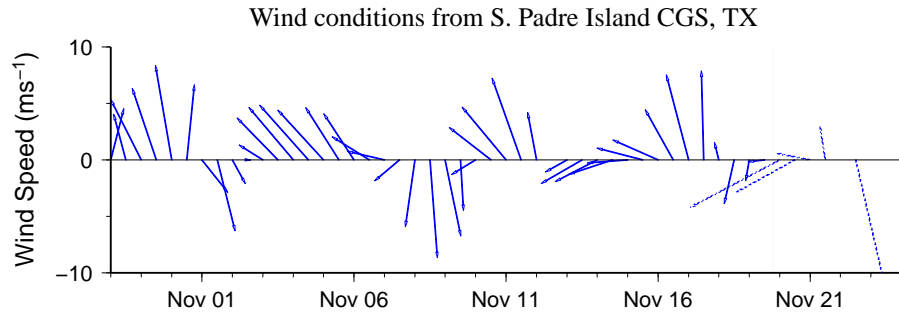
Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 90 km south from Pass Cavallo, 80 km south

from Aransas Pass, and 80 km south from Brazos Santiago Pass, from November 18 to November 22.

Urizar, Lalime



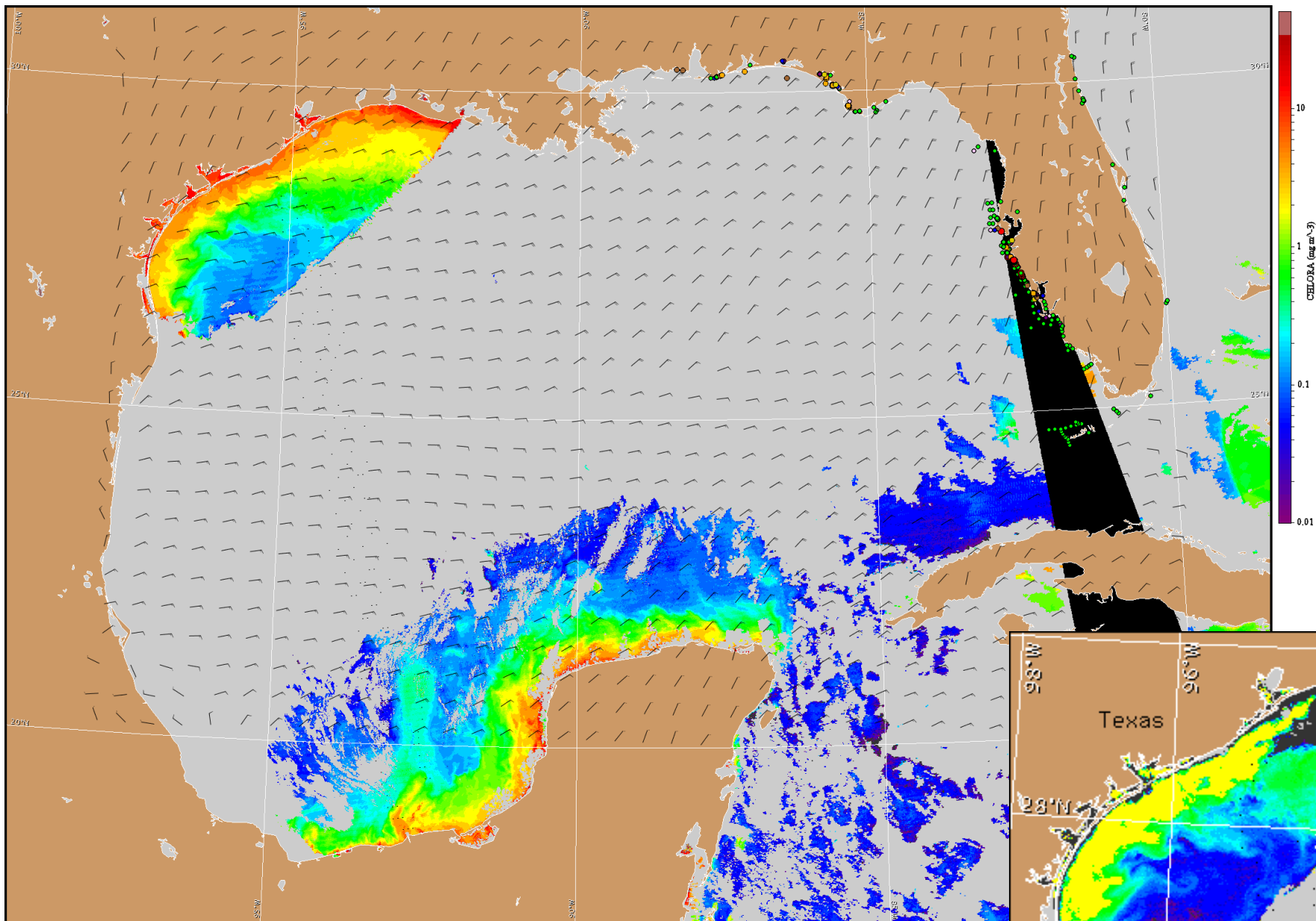
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



## Wind Analysis

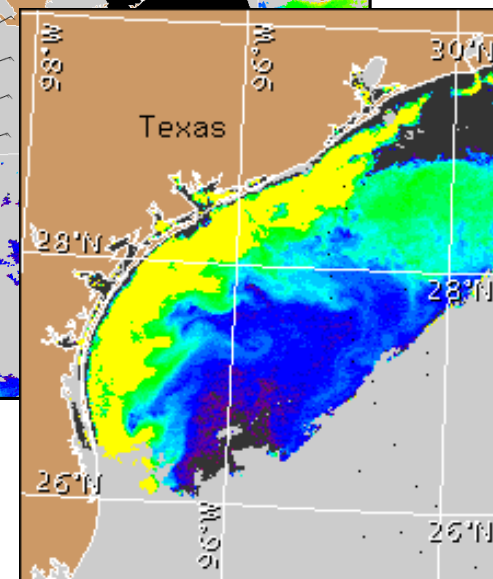
**Port Aransas to Baffin Bay:** Easterly winds (5-15 kn, 3-8 m/s) today through Friday night. Northerly to northeasterly winds (10-30 kn, 5-15 m/s) Saturday to Monday. Easterly winds (10-15 kn, 5-8 m/s) Monday night.

**Port Mansfield to the Rio Grande:** Northeasterly winds (12-17 kn, 6-9 m/s) today. Easterly winds (9-17 kn, 5-9 m/s) tonight and Friday. Southeasterly winds (7-12 kn, 8-6 m/s) Friday night through Saturday morning. Northerly to northeasterly winds (10-32 kn, 5-16 m/s) Saturday with gusts up to 45 kn (23 m/s). Northeasterly winds (21-26 kn, 11-13 m/s) Sunday. Southeasterly winds (9-14 kn, 5-7 m/s) Monday.



Satellite chlorophyll image and forecast winds for November 20, 2015 12Z with points representing cell concentration sampling data from November 9 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).